

Notice of Allowability

Application No.

09/712,181

Applicant(s)

BRAUN ET AL.

Examiner

Raymond B. Persino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed 7/7/2004.
2. ☒ The allowed claim(s) is/are 1-43.
3. ☒ The drawings filed on 07 July 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 8
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

Allowable Subject Matter

1. Claims 1-43 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The applicant's invention of claim 1 is geared toward an antenna device for transmitting and receiving radio frequency waves, installable in a communication device, and comprising: an antenna structure switchable between a plurality of antenna configuration states, each antenna configuration state being distinguished by a set of radiation parameters; a switching device which selectively switches said antenna structure between said plurality of antenna configuration states; and a control device which controls said switching device, and thus the selective switching of said antenna structure between said plurality of antenna configuration states, in accordance with measured operation parameters, so as to improve the quality of at least one of transmission and reception of the antenna structure. The above subject matter is known in the art as evidenced by IRVIN (US 6,021,317 A) or CHAO-CHENG (US 5,991,643 A). However, the applicant further includes the subject matter of: a first receiver which receives a first measured operation parameter indicative of the quality of transmission of radio frequency waves by said antenna structure; a second receiver which receives a second measured operation parameter indicative of the quality of reception of radio frequency waves by said antenna structure; and that the control device controls said switching device in accordance with said received first and second

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measured operation parameters. The applicant's arguments received 7/7/2004 are persuasive and vitiate the 102 rejections based upon SAITO (US 5,754,104 A). Upon further consideration, the closest prior art is IRVIN (US 6,021,317 A). However, IRVIN does not explicitly disclose a first receiver which receives a first measured operation parameter indicative of the quality of transmission of radio frequency waves by said antenna structure; a second receiver which receives a second measured operation parameter indicative of the quality of reception of radio frequency waves by said antenna structure; and that the control device controls said switching device in accordance with said received first and second measured operation parameters. Instead, IRVIN discloses sensors that provide information to the control which controls said switching device in accordance with the information. Specifically, in column 12 lines 36-40, IRVIN indicates that, "these sensing means might include sensors that gauge the power level of the received signal, the position or orientation of the antennas, or other parameters that impact the quality of communications signals transmitted and received by [the] radiotelephone." As such, it is clear that under IRVIN's teaching there can be more than one sensing means that sense parameters impacting the quality of communications signals transmitted and received by [the] radiotelephone. Moreover, since it is within the teaching that there could be more than one sensor, the control device could control the switching device based upon information from the more than one sensor. Thus, the controlling of the antenna switch based upon more than one type of information is taught by IRVIN. However, IRVIN cannot be concluded to teach or suggest a first measured operation parameter indicative of the quality of transmission of

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radio frequency waves by said antenna structure; a second receiver which receives a second measured operation parameter indicative of the quality of reception of radio frequency waves by said antenna structure; wherein the control device controls said switching device in accordance with said received first and second measured operation parameters. While IRVIN's teaching does suggest having one of the sensing means being limited to signal received by the antenna, the teaching does not suggest that the second sensor is limited to signals transmitted from the antenna. At best, the language only suggests sensing a parameter that is indicative of the quality of both receiving and transmitting. Lastly, no prior art has been discovered that would anticipate the claim or render it obvious. As such, the applicant's invention of claim 1, when considered as a whole, comprises a unique combination of subject matter that is neither taught nor suggested by the prior art. Claim 27 is a method claim that corresponds in subject matter to claim 1 and the reasons for allowance are consistent with the reasons given for claim 1 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. CHAO-CHENG (US 5,991,643 A)

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (703) 308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond B. Persino *RP*
Examiner
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RP


LEE NGUYEN
PRIMARY EXAMINER